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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,899	08/22/2001	Keiko Watanabe	500.40538X00	7412
20457	7590	08/18/2003	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			PHAN, THIEM D	
ART UNIT		PAPER NUMBER		
3729		7		

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/933,899

Applicant(s)

WATANABE ET AL.

Examiner

Tim Phan

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**1) Responsive to communication(s) filed on 16 June 2003.2a) This action is FINAL. 2b) This action is non-final.3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.**Disposition of Claims**4) Claim(s) 1-13 is/are pending in the application.4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.5) Claim(s) \_\_\_\_\_ is/are allowed.6) Claim(s) 1-10 is/are rejected.7) Claim(s) \_\_\_\_\_ is/are objected to.8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.**Application Papers**9) The specification is objected to by the Examiner.10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. §§ 119 and 120**13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).a) All b) Some \* c) None of:1. Certified copies of the priority documents have been received.2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).a) The translation of the foreign language provisional application has been received.15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.**Attachment(s)**1) Notice of References Cited (PTO-892)4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_2) Notice of Draftsperson's Patent Drawing Review (PTO-948)5) Notice of Informal Patent Application (PTO-152)3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. The amendment filed in Paper No. 6 (filed 6/16/03) has been duly considered and made of record.

***Election/Restrictions***

2. Newly submitted claims 11-13 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: these are newly claimed discussions on a disc apparatus (Cf. Claims 11-13).

Since applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-13 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

An Office Action on the merits of Claims 1-10 now follows.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al (US 4,683,505) hereinafter '505 in view of Kuno (US 5,572,382) hereinafter '382.

**As applied to claims 1, 2, 5 and 6,** the '505 teaches a method for center-assembling a disk pack, which reads on all of applicants' claimed limitations, including:

- fixing a disc apparatus base on which a spindle motor (Cf. Fig. 1, element 6) is mounted;
- mounting a disc onto a hub (Cf. Fig. 2, element 37) of a spindle motor (Cf. Fig. 2, element 6) where the disc can be moved in a disc radius direction;
- pressing an outer diameter of the disc in a direction of a center axis of the hub by a registration arm (Cf. Fig. 2, element 50; column 2, lines 11-17; column 4, lines 1 & 2);
- pressing back the outer diameter of the disc in contact with the registration arm (Cf. Fig. 2, element 50 & bi-directional arrow) by a registration plunger (Cf. Fig. 2, element 58; column 4, lines 19 & 20) in an opposite direction to the center axis of the hub; and
- fixing the disc (Cf. Fig. 2, element 8) to the hub (Cf. Fig. 2, element 37) of the spindle motor (Cf. Fig. 2, element 6) by a clamp (Cf. Fig. 2, element 26), except for measuring the difference between the outer diameter of the hub and the inner diameter of the disc and pressing back the disc to a half of an amount of tolerance between the inner diameter of the disc and the outer diameter of the hub by the registration plunger.

The '382 teaches the steps of measuring the difference between the outer diameter of the hub and the inner diameter of the disc (Cf. Fig. 4B, element Sx; column 6, lines 54 & 55) and moving to a half of an amount of gap/tolerance between the inner diameter of the disc and the outer diameter of the hub, in the +X direction side to the center axis of the hub (Cf. Fig. 4B, elements Sx & 11; column 6, lines 57 & 58) in order to balance/center the disc (Cf. Fig. 4E).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings and to apply a reverse moving in an amount of half distance of the gap (as taught by the '382) in order to balance/center the disc with regard to the hub.

**As applied to claims 3 and 4,** the '505 teaches a pressurizing means with registration arm and plunger (Cf. Fig. 2, elements 50 & 58) to press in opposite side of the disc outer diameter.

**As applied to claims 7 and 8,** the '505 teaches the claimed invention except for describing the springs to press the registration members (Cf. Fig. 2, elements 60 & 68 or 80 & 88) against the outer diameter of the disc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply any pressing force including a spring in order to move the registration members. The '505 teaches that the registration arm sustains a bi-directional movement (Cf. Fig. 2, element 50 & bi-directional arrow) and the registration plunger sustains a pressing force (Cf. Fig. 2, element 68; column 4, lines 19 & 20).

**As applied to claims 9 and 10,** the '382 teaches the claimed invention except for describing the displacement gauge to monitor the amount of gap/distance the disc is moved

(Cf. Applicants' Disclosure, page 11, lines 17 & 18) . It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a displacement gauge or the like since an artisan would provide a displacement gauge to measure gap distance.

***Response to Arguments***

5. Applicants' arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

This Office Action is a **non-Final** Office Action.

Prosecution continues.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 703-605-0707. The examiner can normally be reached on Monday - Friday, 9AM - 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter VO can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

*tp*  
**CARL J. ARBES**  
**PRIMARY EXAMINER**

Tim Phan  
Examiner  
Art Unit 3729

tp  
August 14, 2003